



# **PRO**ECO

## SOLUTIONS

**Environmental Products & Services**

# About Us

# About us

- ✓ **ProEco Solutions Pvt Ltd** was started in 2014-15 as ProEco Solutions under the ideals enshrined in **Swachh Bharat Abhiyan** and **Make in India**. It is a one stop shop for Environmental Engineering Products and Services, catering to a variety of clients providing in house solutions for **Waste Management, Rainwater Harvesting, Water Treatment and Waste Water Treatment**.

**ISO 9001:2015 & ISO 14001:2015 Certified**

## TEAM

**Amogh Kabe**

Co-Founder & Director

Int. MS Applied Physics - IIT Roorkee  
Environmental Engineering Professional

**Pankaj Bachhav**

Co-Founder & Director

Chemical Engineer, 15+ years experience  
in Water and Waste Water Treatment

**Shripad Kabe**

Advisor

MSc, LLB – 30+ years Experience in  
various Public Sector Projects

**Laxman Suthar**

Head – RWH

Civil Engineer, Expertise in  
Compliances for IGBC & CGWA

Supported **Pan India** by a **Team of 100+** Associates, Engineers, Technicians and Operators.

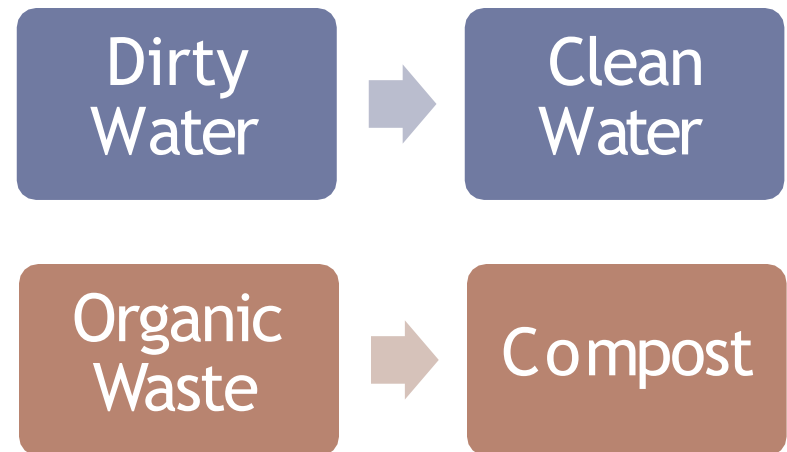
---



# PROECO SOLUTIONS

- ❑ **Water and Wastewater Treatment**
  - Environmental Compliances
  - Sewage Treatment Plants
  - Effluent Treatment Plants
  - Water Treatment Plants
  - Reverse Osmosis Plants
  - Ozonation Systems
- ❑ **Rainwater Harvesting System**
  - Modular RWH Units
  - IGBC & CGWA Compliance
- ❑ **Waste Composting Systems**
  - In-Vessel Composting Systems
  - Conventional OWC Systems
- ❑ **AMC, Operation and Maintenance**

WE MAKE SYSTEMS THAT HELP YOU  
**GET THE BEST  
OUT OF YOUR WASTE**



# Some Water & Wastewater Treatment Clients from Key Sectors

- **Toyo Engineering**  
*LNG Facility, Chhara Port Terminal -  
Packaged Wastewater Treatment Plant  
LNG Facility, Dahej Port Terminal -  
Packaged Wastewater Treatment Plant*
  - **Aqua Foods Exim**  
*Fish Processing Unit, Chiplun -  
End to End Solution STP and ETP*
  - **Amravati Municipal Corporation**  
*Fish Processing Unit & Market ETP*
  - **Uni-Design Jewellery Pvt Ltd**  
*Manufacturing Unit, Andheri -  
Design and Supply of ETP*
  - **Express Inn Group**  
*Micro-Brewery, Nashik -  
Packaged ETP  
Hotel, Aurangabad -  
STP & Packaged ETP*
  - **PACSFED-Telemachus Group (USA)**  
*Mixed Wastewater Plant, Lucknow  
Mixed Wastewater Plant, Pratapgarh  
Mixed Wastewater Plant, Delhi  
Design & Component Supply*
  - **Employee State Insurance Corp.**  
*Hospital, Akurli Road Mumbai -  
WTP, STP & ETP  
Hospital, Pune -  
ETP & STP*
  - **Indian Oil Corporation Ltd**  
*Panipat Terminal -  
Multiple Packaged STPs & RWH Design  
Manmad Terminal -  
Package STP & Pressure Vessels  
Dhule & Goa Terminals - Packaged STPs  
Kadapa Bottling Terminal -  
Packaged ETP (Licenses Area)*
-

# Some Water & Wastewater Treatment Clients from Key Sectors

- **Centrum**  
*STP 150kld F9 Fenkin Infra, Thane*  
*STP 500kld C5 Centrum Square, Thane*  
*STP 200kld C6, Thane*
  - **Surasha Smart City, Vasai**  
*200kld Packaged STP Labour Camp*  
*5500 kld Cluster STP*  
*6200 kld Cluster STP*
  - **Suraksha Casting Yard, Vasai**  
*20kld Factory Packaged ETP*  
*4 Nos x Sedimentation Tanks*
  - **Builtstrong Infra, KDMC**  
*1500 kld Cluster STP*  
*KDMC Umbarde BSUP Project*
  - **Jindal Developers, Panvel**  
*235kld STP Uptown*  
*175kld STP Jindal*
  - **Kamdhenu Lifescapes**  
*100 kld STP, Nimbeshwar Gardenia*  
*6000LPH RO, Nimbeshwar Gardenia*
  - **Sadguru Developers**  
*325kld STP, Sadguru Nakshatra*
  - **Fifa U17 World Cup, Navi Mumbai**  
*Greywater Treatment Plant*
  - **Mahindra Logistics/Shakti Park**  
*2 Nos x Packaged STPs, OWC*
  - **SIFY Infinity**  
*2 Nos x Packaged STPs, Rabale*
  - **Runwal Developers**  
*700kld STP, R-Mall Office Dombivali*  
*425kld STP, R-Mall Dombivali*  
*1400kld STP, Runwal Mahalaxmi*  
*990kld STP, Runwal Mahalaxmi*
-

# Some Water & Wastewater Treatment Clients from Key Sectors

- **Naturals Ice Cream**  
*Ice-Cream Production Unit -  
Process Optimization of Old ETP  
New Packaged ETP*
  - **Nouveau Diamonds LLP**  
*Manufacturing Unit, Navsari -  
Design and Supply of WTP*
  - **Mahindra Brothers**  
*Navsari Jewellery Unit -  
Material Recovery ETP  
Packaged ETP*
  - **Cancare Trust Hospital**  
*Cancer Research Centre, Mumbai -  
Nuclear Medicine ETP  
STP, WTP & RWH System*
  - **Radisson Hotel**  
*Hotel & Spa Lonavala -  
STP, RWH & WTP*
  - **Cloud Nine Hospitals**  
*Pan India 25 Sites-  
WTP, STP & ETP*
  - **Palladium Mall, Lower Parel**  
*Conversion of Old Plant to MBBR STP*
  - **Shapoorji Pallonji Group**  
*Vicnia Mumbai, Packaged STP  
The Imperial, Conventional STP, WTP  
The Imperial Edge, Packaged STP  
Park West Bangalore, SBR STP  
Multiple SRAs, Packaged STP  
East Pune Reality, Packaged STP*
  - **MAN Realty**  
*Aradhya East Wind, Mumbai - MBBR STP  
Aradhya Nine, Mumbai - MBBR STP  
Aradhya Avenue, Mumbai - 3 x MBBR STP  
High Park, Mira Road - STP, OWC  
Mira Road Hospital - ETP*
-



# Some Rainwater Harvesting Clients from Key Sectors

- **Times of India**  
*Printing Press, Mumbai -  
Rainwater Re-Use Project*
  - **BHTC**  
*Manufacturing Unit, Bhosari -  
Artificial Reverse Borewell Recharge  
IOT RWH Monitoring System*
  - **Morgan Crucible India**  
*Graphite Unit, Aurangabad -  
Rainwater Re-Use Project  
IOT RWH Monitoring System*
  - **Phoenix Malls**  
*Phoenix Market City, Pune -  
Artificial Reverse Borewell Recharge*
  - **ESR Amazon**  
*Industrial Park/Warehouse, Khed -  
Rainwater Re-Use Project*
  - **Metaforge Engineering**  
*Manufacturing Unit, Nashik -  
Artificial Reverse Borewell Recharge*
  - **KSH Industrial Park**  
*Chemical Container Storage, Talegaon -  
Packaged ETP  
Mixed Use Warehouse, Chakan -  
Packaged STPs  
Artificial Borewell Recharge RWH*
  - **Pride World City**  
*Township, Pune -  
Design & Supply of WTP  
Artificial Borewell Recharge RWH*
  - **Cipla**  
*Manufacturing Unit, Satara -  
Artificial Borewell Recharge RWH  
IOT RWH Monitoring System*
-



# **Water & Wastewater Treatment**

# Wastewater Treatment

- ❑ MBBR STP/ETP (RCC/Packaged)
- ❑ SBR, ASP, ECPO & Other Types
- ❑ Effluent Treatment Plant Design
- ❑ Ozonation Systems
- ❑ Operation and Maintenance
- ❑ Existing Plant Improvements
  - Plant Audit to arrive at Solutions
  - Fix Underperforming Plants
  - No Colour, Odour or Particles
  - Fully Operationalize ETP/STP



# A Wastewater Treatment Plant

## WASTEWATER

### Primary

- Bar Screen & Oil Grease Trap
- Flow Equalization & Neutralization
- Primary Clarification

### Secondary

- Anoxic Treatment
- Aerobic Biological Treatment
- Secondary Clarification

### Tertiary

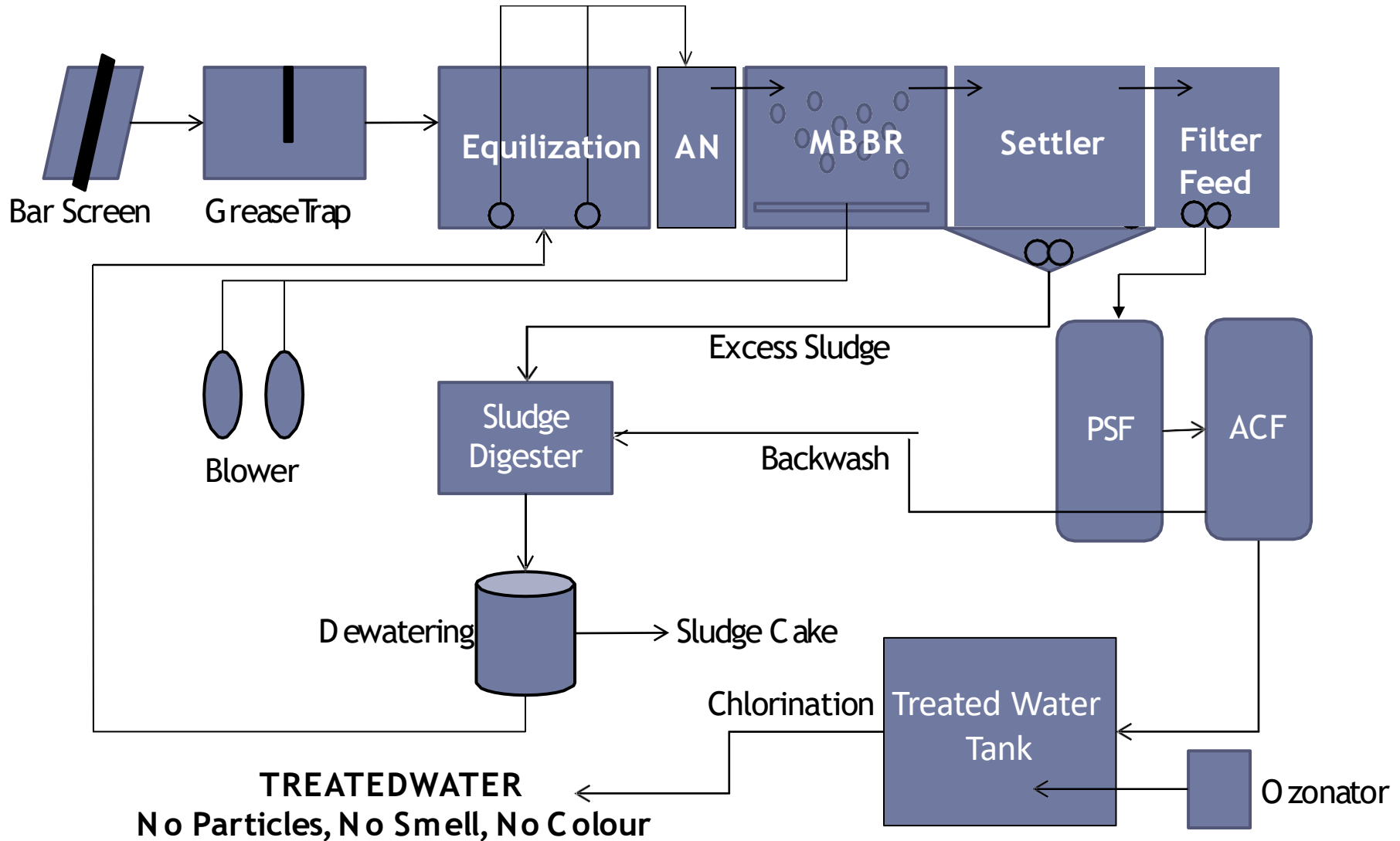
- Sand and Carbon Filtration
- Micro or Ultrafiltration (Optional)
- Disinfection by UV, Ozone or Hypo

## TREATED WATER

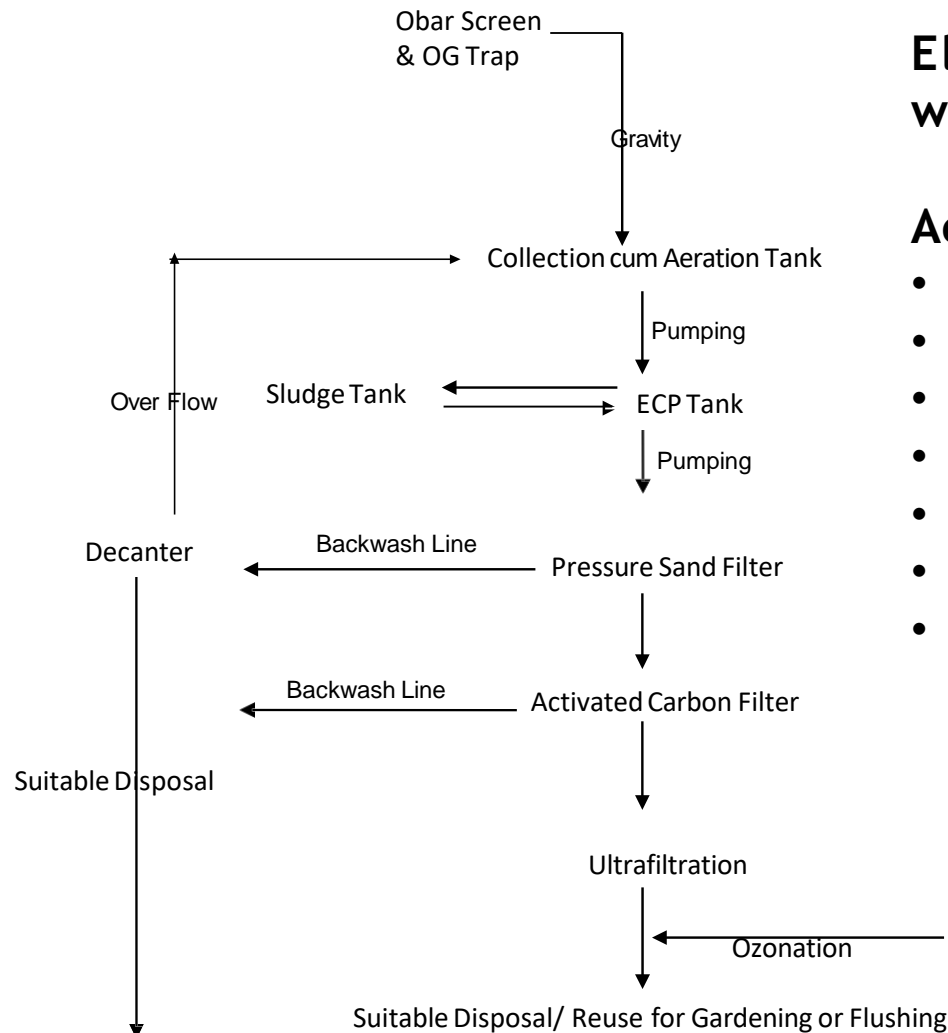
### Sludge Handling

- Sludge Extraction & Recycling
- Excess Sludge Treatment
- Sludge Dewatering for Disposal

# MBBR Sewage Treatment Process Flow



# ECPO Sewage Treatment Process Flow



## Electro Coagulation Precipitation with Ozonation & Ultrafiltration

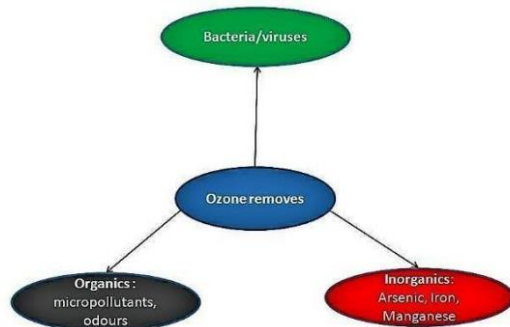
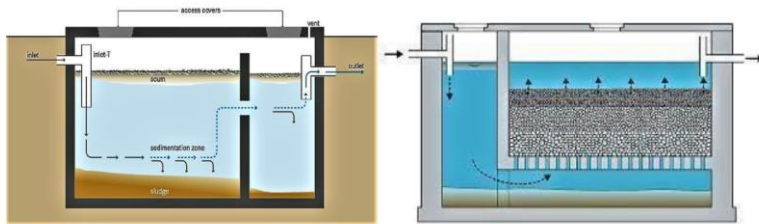
### Advantages of ECP process:

- Low biological process dependence
- Lower Retention time
- Quick Start up time
- Compact plant small footprint
- Less in civil cost
- Easily expandable, noiseless
- Ozonation for colour/odour removal

# Stand Alone Toilets/Bungalows Bio STP

## Stand Alone Bio-STP

- Anaerobic Baffled Reactor + Ozonation + Filtration (Optional)
- No Manpower & Low Maintenance
- No Smell or Noise Nuisance
- Higher Efficiency than Septic Tanks
- Water can be reused for gardens
- Compact plant, Less in civil cost
- Easily expandable, noiseless





# Water Treatment Plants

- ▶ Reverse Osmosis Plants
- ▶ Ultra Filtration Plants
- ▶ Water Softening Plants
- ▶ Swimming Pool Filters
- ▶ Water Treatment Plants
- ▶ DM Treatment Plants





# Some STP/ETP Photographs





# Some STP/ETP Photographs

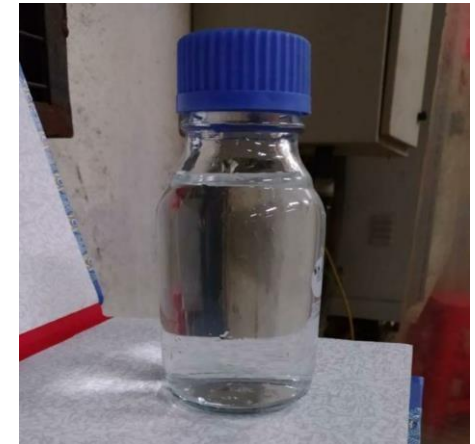
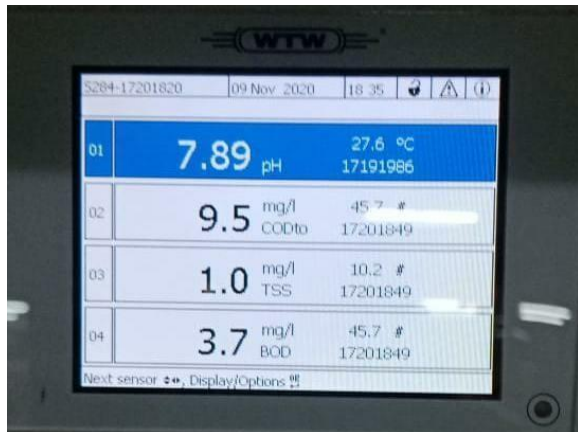




# Under Fabrication Photographs



# Some Treated Water Photographs



# **Rainwater Harvesting**



# Rainwater Harvesting Unit

## Modular Rainwater Harvesting Unit

- **Application**
  - Artificial Recharge as per CGWB compliance
  - Residential and Commercial project compliance such as IGBC, EC, MPCB, IGBC
  - Environment control and CSR activities in Industries
  - Government bodies such as smart city and infrastructure planning
- **Specification**
  - Available in modular and flexible solution as per various sizes and design parameter
  - Easy for application unit with various filtration compatibility.
  - Hassel free maintenance with minimum time line
  - Quick installation



## Flood Prevention and Monitoring Product

- **Application**
  - Smart city and E-Government bodies
  - Government infrastructure such as river bridge, ocean bridge, beaches etc.
  - Low line or Flooding area.
  - Infrastructure planning
- **Specification**
  - Integral: All the components are mounted on and within a weatherproof Stand pole.
  - Remote: The Sensor boom is installed closer to the water body.
  - The weatherproof Stand pole housing the Communicator, battery and the solar panel is mounted remotely. The Communicator and Sensor are interconnected via a signal cable.

# Case Study – Phoenix Mall, Pune

## Rainwater Artificial Reverse Borewell Recharge

- **Project Details**

- Total Plot area : 14.30 Acre
- Average Rainfall : 1454.72mm
- Possible Rainwater Runoff : 37875 KL/YR
- PROECO Inline SWD Model : 8 Nos
- PROECO Side SWD Model : 8 Nos
- Depth of Reverse Borewell : 60 Mtr
- Estimated Percolation Rate : 1 KL/Hr
- Estimated Recharge in 16 Pit : 6240 KL/Yr
- Advantages : Groundwater Level Improvement, TDS reduced by fresh rainwater delusions.





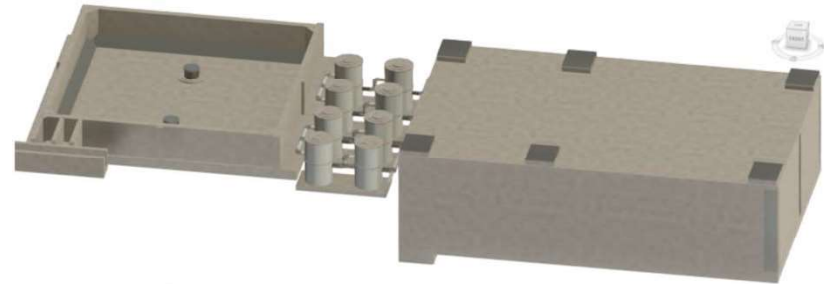
# Case Study – Morganite Crucibles India Ltd. Aurangabad

## Rainwater Reuse Model

- **Project Details**

- Total Plot area : 16.00 Acre
- Average Rainfall : 724.02mm
- Possible Rainwater Runoff : 21096 KL/YR
- PROECO De-siltation Model : 2 Nos
- PROECO Filtration junction Model : 4 Nos
- Capacity of Primary Collection Sump : 54 KL
- Capacity of Rainwater Storage : 500 KL
- Estimated Reuse Cycle : 100 KLD
- Estimated Reuse : 8500 KL/Yr
- V Notch Online Monitoring Systems : 2 Nos

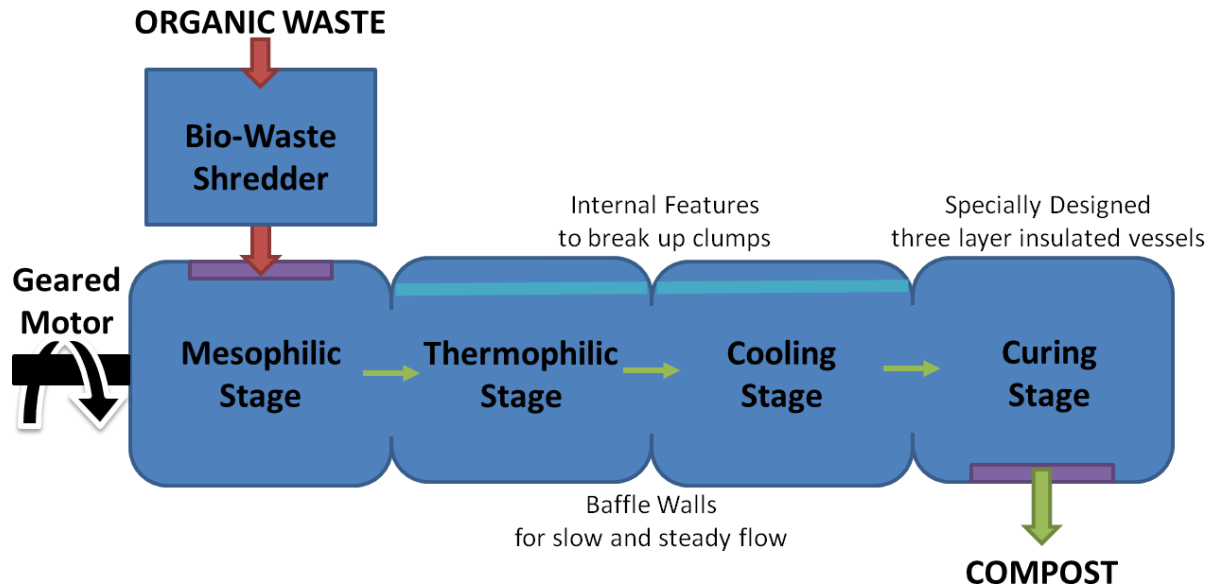
Note: Whole plat is designed full atomization with IOT base data monitor log



# **Organic Waste Composting**

# In-Vessel Composter

Segregated organic waste is processed in bio waste shredder, along with compost culture and absorbent material. It is then kept in the compost tumbler for 8 to 12 days.

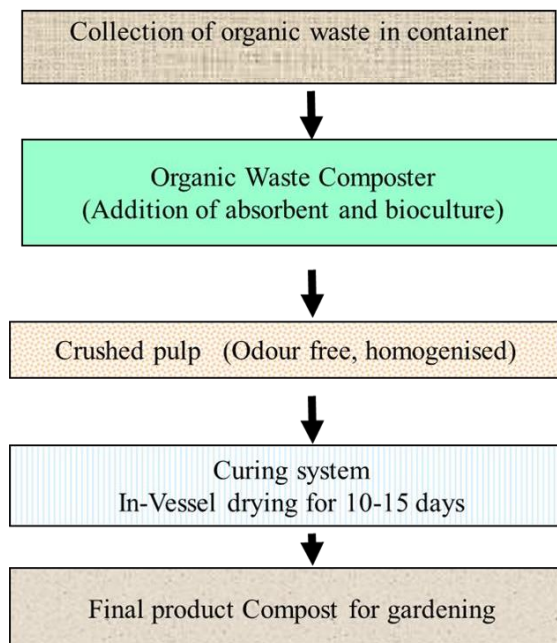


- Automated Systems from 50 kg/day to 1000 kg/day Capacities
- Compost Tumbler integrated with Bio Waste Shredder and geared motor for rotation. Ease of use, automated, requiring low power & manpower
- Ideal for Apartment Complexes, Hotels, Hospitals, Commercial and Corporate Buildings etc.

# Organic Waste Converter



**ProEco Solutions is featured in the List of  
Decentralised Waste Management Equipment  
Manufacturers published by MCGM**



- OWC in SS 304 with capacities from 20 kg per hour to 500 kg/hr
- Produces Pre-Compost homogenised with Absorbent and Bio-culture
- Stored in Crates which are Racked and turned or fogged daily for a period of 10-15 days for proper Composting.





# PROECO SOLUTIONS GET THE BEST OUT OF YOUR WASTE

ProEco Solutions Pvt Ltd, No 28A/B, Kharegaon Ind. Estate,  
Near Toll Naka, Mumbra Rd, Thane - 400605

Email: [mail@proecoenvironment.com](mailto:mail@proecoenvironment.com)